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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,254	09/30/2003	Hitoshi Kosugi	241051US6YA	2850

22850 7590 09/20/2005

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ALEXANDRIA, VA 22314

EXAMINER
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HUSBAND, SARAH E

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/673,254	Applicant(s) KOSUGI, HITOSHI	
	Examiner Sarah E. Husband	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 13-25 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

5

## DETAILED ACTION

### *Election/Restrictions*

Applicant's election of Group 1 (Claims 1-12, 26) in the reply filed on August 8, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuno (US Patent No. 6,874,516).

Matsuno discloses a nozzle assembly dispensing rinse solution on a substrate comprising a first nozzle array and a second nozzle array each having a control valve (col. 12, line 45-col. 13, line 27; Figs. 8A,8B,9A,9B,10A,10B, and 12). Matsuno also discloses a controller controlling the valves and therefore controlling fluid flow (Fig. 11, Item 22) and the solution supply connected to both valves and also individual solution sources connected to each of the valves. In Fig. 12, it shows the relationship between the fluid source and the multiple valve connections. Whether or not the fluid is a rinse solution is not given weight

Art Unit: 1746

because in apparatus claims, the structural limitations are given weight and not the intended use of these limitations as long as it is possible to perform the intended use. Matsuno also discloses using a flow meter and flow control valves (Fig. 12, Items 27 and 28) on both nozzle systems. Matsuno further discloses rotating the substrate, the structure including a substrate holding members and motor to drive the structure (Fig. 1, Item 8; col. 8, ll. 1-4, col. 9, ll. 20-30). Matsuno also describes using pure water, which deionized water would be a type of pure water and therefore would be anticipated by Matsuno. Matsuno discloses that the amount of liquid can be controlled as desired (col. 14, ll. 44-60). Matsuno further discloses using a sealed shell (chamber) for placement of the substrate (col. 8, ll. 35-40).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuno.

Matsuno discloses the substrate cleaning apparatus shown above in the 102(e) rejection. Matsuno does not specifically disclose the controller controlling the rotation of the substrate. However, Matsuno does disclose controlling the treating apparatus to obtain the desired conditions and it would certainly be within the level of one of ordinary skill in the art to provide a controller dictating the speed of rotation as this is a well-known operation in the art.

Claims 1-12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandal (US Patent No. 6,770,424).

Mandal discloses a dispensing apparatus for wafers having first and second nozzle assemblies having a plurality of nozzles (Fig. 10A; col. 13-15). Mandal also discloses a controller controlling the rotation of the wafer and the amount of fluid dispensed (Fig. 4, Item 46). Although Mandal does not disclose valves for controlling the fluid flow, it would be obvious to one of ordinary skill in the art that the supply unit shown in Figure 4 would include valves in order to select between the appropriate fluid. Mandal further discloses using deionized water/rinse solution and a wafer holder (Fig. 4, Items 44, 52).

### ***Conclusion***

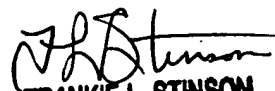
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art not referred to are Oh (US 6,751,824), Yoneda (US 5896875), Kanno (US 6048409), Taniyama (US 6357457), Torek (US 6645874), Templeton (US 6,688,784), Katakabe (US 6745784), Lee (US 6748672) and Shibagaki (US 6824621), who teach multiple dispensing nozzles in use with wafer treatment apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah E. Husband whose telephone number is (571) 272-8387. The examiner can normally be reached on M-F 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached at (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEH  
9/16/2005

  
**FRANKIE L. STINSON**  
**PRIMARY EXAMINER**  
**GROUP 3480 / 1700**